
Leominster Retirement System



**Actuarial Valuation
January 1, 2007**

STONE CONSULTING, INC.

31 Marlyn Road
Medfield, MA 02052
(508) 359-9600 (Telephone)
(508) 359-0190 (Facsimile)
Lstone@stoneconsult.com

September 27, 2007

Leominster Retirement Board
City Hall, Room 15
25 West Street
Leominster, MA 01453

Dear Leominster Retirement Board:

Stone Consulting, Inc. has performed a January 1, 2007 actuarial valuation of the Leominster Contributory Retirement System. This valuation and report was prepared using generally accepted actuarial principles and practices and meets the parameters set by the Governmental Accounting Standards Board Statement (GASB) No. 25. To the best of our knowledge, this report is complete and accurate, and the assumptions used represent our best estimate of anticipated experience of the system.

As part of performing the valuation, Stone Consulting, Inc. was furnished member data by the Leominster Contributory Retirement System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary. In addition, the administrative staff furnished financial statements that were not audited by the actuary or by the plan's auditors.

The funding objective of the plan is to fully fund the system while attempting to maintain a stable contribution amount for the upcoming fiscal year that is consistent with prior funding schedules or if employer finances allow it, to increase the contribution amount. This funding objective is being met.

We anticipate over time the contribution level to decrease as a percentage of payroll. The contribution rate is determined by adding the normal cost plus an amortization of the unfunded actuarial accrued liability. The normal cost is expected to remain at a level percentage of payroll. The number of years of the amortization and/or the rate of increase of the amortization is adjusted to maintain a stable contribution level for the upcoming fiscal year. The length of the funding schedule contained in this actuarial valuation report is seven years, one year less than the prior January 1, 2006 actuarial valuation with a 1.75% amortization. The amortization increase cannot exceed 4.5% annually. The maximum length of the amortization is until Fiscal 2028. These limits are contained in Chapter 32 of the Massachusetts General Laws.

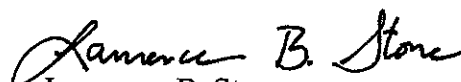
The contribution amount for Fiscal Year 2008 is \$5,293,353 that is \$160,207 more than the anticipated contribution amount from the prior funding schedule. PERAC and GASB guidelines indicate that actuarial valuations should be conducted at least every other year. The Leominster Contributory Retirement Board conducted their previous actuarial valuation effective January 1, 2006. This satisfies these guidelines.

We are pleased to present the results of this valuation. If the Retirement Board has any questions on the content of this report, we would be glad to respond.

Respectfully submitted,

STONE CONSULTING, INC.

Actuaries for the Plan


Lawrence B. Stone

Member, American Academy of Actuaries



LEOMINSTER RETIREMENT SYSTEM

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LEOMINSTER RETIREMENT SYSTEM

INTRODUCTION

This report presents the results of the actuarial valuation of the Leominster Retirement System. The valuation was performed at the request of the Retirement Board as of January 1, 2007 for the purpose of determining the contribution requirements for Fiscal Year 2008 and beyond. The contribution requirements are based on:

- The financial condition of the system as of December 31, 2006
- The benefit provisions of M.G.L. Chapter 32;
- The demographics of members in the system (i.e., active and inactive participants, retirees and beneficiaries as of January 1, 2007);
- Economic assumptions regarding salary increases and investment earnings; and
- Other actuarial assumptions (i.e., terminations, retirement, death, etc.)

JANUARY 1, 2007 VALUATION SUMMARY

	January 1, 2007	January 1, 2006	Change
Contribution Fiscal 2008	\$5,293,353	\$5,133,146	\$160,207
Funding Schedule Length*	7 years	8 years	-1 years
Amortization Increase*	1.75%	2.50%	-0.75%
Funding Ratio	79%	74%	6%
Interest Rate Assumption	8.00%	8.00%	0.00%
Salary Increase Rate Assumption	4.75%	4.75%	0.00%

- The Fiscal Year 2008 contribution is \$160,207 more than the planned 2008 contribution. The System experienced a \$6.6 million net actuarial asset gain from calendar year 2006. Stone Consulting, with agreement from the Retirement Board, values assets using market value of assets.



LEOMINSTER RETIREMENT SYSTEM

The System experienced a 16.7% return on the market value of assets versus our assumption of an 8.00% return. The System's asset portfolio, effective December 31, 2006 was 76% equities and 24% fixed income and short-term investments. The interest rate assumption was maintained at 8.00% to reflect anticipated market performance.

- We have kept the salary increase rate at 4.75%, consistent with the 2006 actuarial valuation. Total compensation changed by 3.0% over the prior valuation; however average annual compensation (compensation divided by number of active members) changed by 10.4%. We believe that some of the increase may be related to retroactive salary settlements and improvement in checking for terminated status. We recommend that retroactive salary changes be carefully considered in the next valuation. The number of active members has decreased, along with the average age. Average service, however, has increased.
- The funding level of the Leominster Retirement System is 79% compared to 74% for the January 1, 2006 actuarial valuation. Chapter 68 requires a minimum funding ratio of 65% along with additional criteria in order to avoid being labeled an "under performing system". If you are considered an "under performing system" the system assets are required to be transferred to PRIT. The system is likely to remain over the 65% funding ratio level unless the market has a sustained downturn or there are significant changes to benefit provisions. The funding level is estimated to be in the second quartile of Massachusetts' Contributory Retirement Systems.

The schedule length is seven (7) years. The maximum period permitted under Chapter 32 of the Massachusetts General Laws is 20 years (2028). The amortization percentage was changed from 2.50% to 1.75%, was changed from 2.50% to 1.75% while increasing the FY2008 contribution level by 3.1% compared with the prior valuation. The maximum amortization permitted under Chapter 32 is 4.5%. This is a positive development towards the funding of the system along with lowering the annual contribution increase to the system's governmental units.

- All non-economic assumptions are consistent with the January 1, 2006 actuarial valuation.



LEOMINSTER RETIREMENT SYSTEM

JANUARY 1, 2007 ACTUARIAL VALUATION RESULTS

	January 1, 2007	January 1, 2006	Percentage Change
Funding			
• Contribution for Fiscal 2008	\$5,293,353		
• Contribution for Fiscal 2008 based on current schedule		\$5,133,146	3%
Members *			
• <i>Actives</i>			
a. Number	616	660	-6.7%
b. Annual Compensation	\$22,775,233	\$22,108,781	3.0%
c. Average Annual Compensation	\$36,973	\$33,498	10.4%
d. Average Attained Age	43.7	45.0	-2.9%
e. Average Past Service	10.8	10.0	8.0%
• <i>Retired, Disabled and Beneficiaries</i>			
a. Number	373	365	2.2%
b. Total Benefits*	\$5,911,160	\$5,574,557	6.0%
c. Average Benefits*	\$ 15,848	\$15,273	3.8%
c. Average Age	72.2	73.2	-1.4%
• <i>Inactives</i>			
a. Number	108	102	5.9%
Normal Cost			
a. Total Normal Cost as of January 1, 2007	\$2,906,883	\$2,825,895	2.9%
b. Less Expected Members' Contributions	<u>1,950,446</u>	<u>1,865,112</u>	4.6%
c. Normal Cost to be funded by the Municipality	\$956,437	\$960,783	-0.5%
d. Adjustment to July 1, 2007	22,452	22,554	-0.5%
e. Administrative Expense Assumption	<u>150,000</u>	<u>150,000</u>	0.0%
f. Normal Cost Adjusted to July 1, 2007	\$1,128,889	\$1,133,337	-0.4%

*Excluding State reimbursed COLA



LEOMINSTER RETIREMENT SYSTEM

SUMMARY OF JANUARY 1, 2007 VALUATION (Continued)

	January 1, 2007	January 1, 2006	Percentage Change
Actuarial Accrued Liability as of January 1, 2007			
a. Active Members	\$54,209,277	\$50,548,259	7.2%
b. Inactive Members	649,279	518,059	25.3%
c. Retired Members and Beneficiaries	<u>56,893,889</u>	<u>50,893,057</u>	11.8%
d. Total	\$111,752,445	\$101,959,375	9.6%
Unfunded Actuarial Accrued Liability			
a. Actuarial Accrued Liability as of January 1, 2007	\$111,752,445	\$101,959,375	9.6%
b. Less Actuarial Value of Assets as of January 1, 2007	<u>88,606,344</u>	<u>75,143,128</u>	17.9%
c. Unfunded Actuarial Accrued Liability as of January 1, 2007	\$23,146,101	\$26,816,247	-13.7%
d. Adjustment to July 1, 2007	<u>\$ 1,405,012</u>	<u>\$1,551,252</u>	
e. Unfunded Actuarial Accrued Liability as of July 1, 2007	\$24,551,113	\$28,367,499	



LEOMINSTER RETIREMENT SYSTEM

DEMOGRAPHIC INFORMATION

Members	January 1, 2007	Percentage Change
• <i>Actives</i>		
a. Number	616	-6.7%
b. Annual Compensation	\$22,775,233	3.0%
c. Average Annual Compensation	\$36,973	10.4%
d. Average Attained Age	43.7	-2.9%
e. Average Past Service	10.8	8.0%
• <i>Retired, Disabled and Beneficiaries</i>		
a. Number	373	2.2%
b. Total Annual Retirement Allowance excluding State-reimbursed COLA	\$5,911,161	6.0%
• <i>Inactives</i>		
a. Number	108	5.9%

- The data was supplied by the Leominster Retirement Board. The data was checked under broad parameters for reasonableness. With the assistance of the staff of the Leominster Retirement Board, we were able to develop a database sufficient for valuation purposes.
- Payroll changed by 3.0% over the course of the past year. Average annual compensation changed by 10.4% over the same time period.
- The salary increase assumption includes general wage adjustments, step increases, and promotional increases.



LEOMINSTER RETIREMENT SYSTEM

HISTORY OF ACTIVE PARTICIPANTS

Valuation Year	Number	Average Age	Average Past Service	Average Ann'l Compensation
2007	616	43.7	10.8	\$36,973
2006	660	45.0	10.0	\$33,498
2004	613	45.4	10.2	\$33,700
2001	610	44.3	9.6	\$29,800

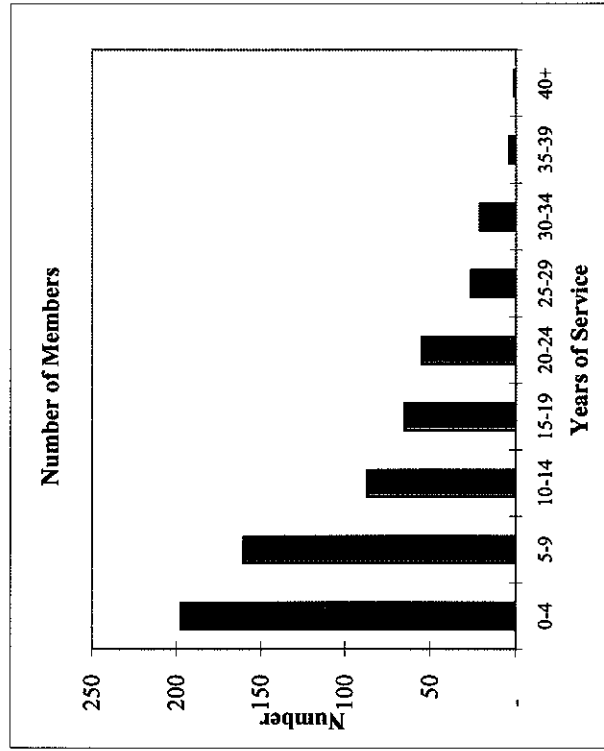
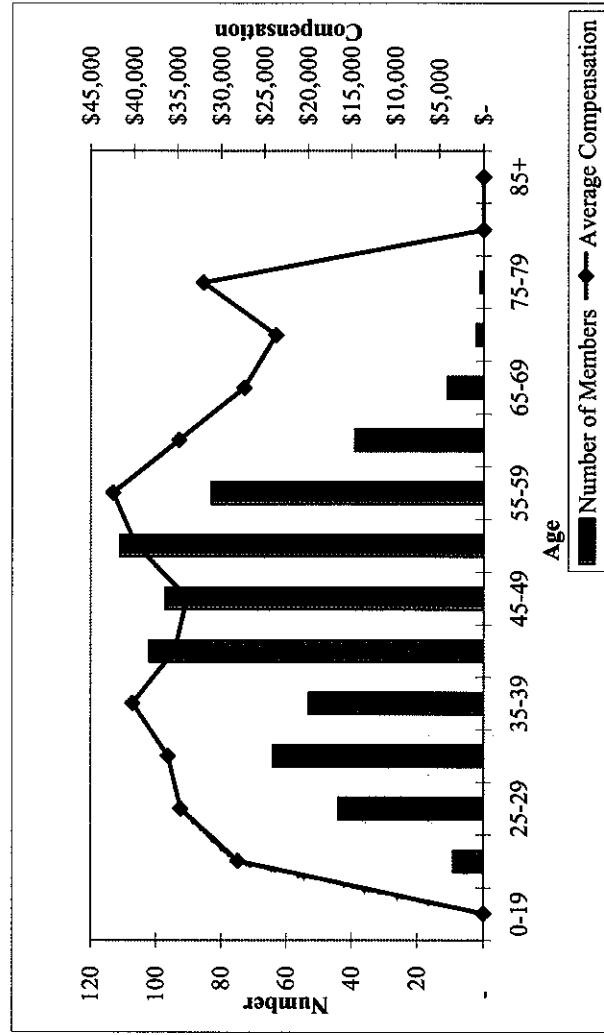
- Employee age has decreased by half a year and service has increased by one year over the course of the past six years. Average annual compensation has grown by 24.1% (3.7% annually) over the same time period.

The charts on the following pages summarize demographic information regarding active and retiree members.



LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM Distribution of Plan Members as of January 1, 2007 Active Members

AGE	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40+ Years	Total	Total Compensation	Average Compensation
0-19	-	-	-	-	-	-	-	-	-	-	\$	\$
20-24	9	-	-	-	-	-	-	-	-	9	252,607	28,067
25-29	39	5	-	-	-	-	-	-	-	44	1,524,432	34,646
30-34	32	27	5	-	-	-	-	-	-	64	2,309,417	36,085
35-39	20	17	15	-	-	1	-	-	-	53	2,128,388	40,158
40-44	35	28	11	21	-	7	-	-	-	102	3,603,271	35,326
45-49	24	31	14	11	14	14	3	-	-	97	3,285,156	33,868
50-54	22	23	25	7	15	13	6	-	-	111	4,414,294	39,768
55-59	8	17	10	16	11	3	14	3	1	83	3,519,141	42,399
60-64	6	9	5	7	4	6	1	-	-	39	1,358,386	34,830
65-69	1	2	2	2	3	1	-	-	-	11	300,782	27,344
70-74	-	1	-	1	-	-	-	-	-	2	47,330	23,665
75-79	1	-	-	-	-	-	-	-	-	1	32,029	32,029
80-84	-	-	-	-	-	-	-	-	-	-	-	-
85+	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	197	160	87	65	55	26	21	4	1	616	\$ 22,775,233	\$ 36,973



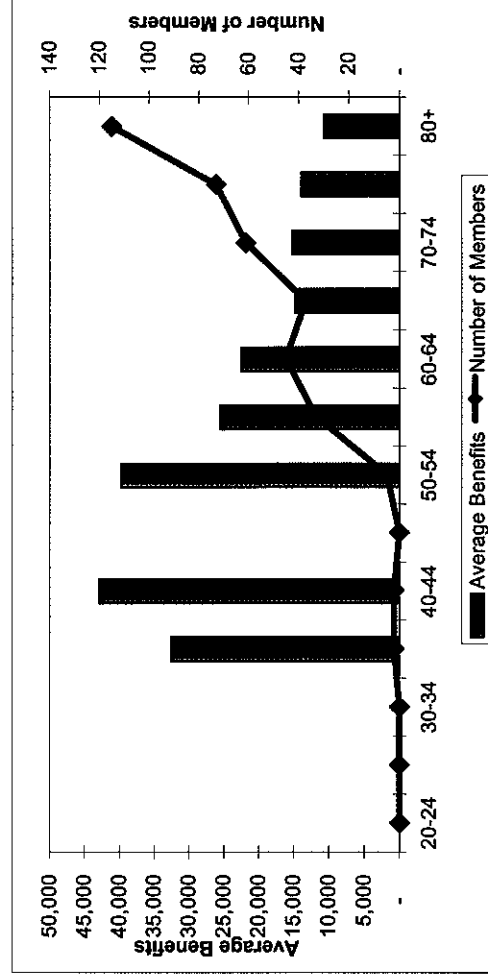


LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM
Distribution of Plan Members as of January 1, 2007
Retired Members

Age	Disabled Member		Retired Members and Beneficiaries		
	Number	Average Benefit	Number	Average Benefit	Total Benefit
20-24	-	-	-	-	-
25-29	-	-	-	-	-
30-34	-	-	-	-	-
35-39	1	30,597	1	34,411	34,411
40-44	2	42,869	-	-	-
45-49	-	-	-	-	-
50-54	2	34,162	3	43,447	130,340
55-59	6	22,168	27	26,275	709,434
60-64	7	22,601	38	22,464	853,614
65-69	2	21,000	35	14,357	502,478
70-74	6	25,795	55	14,003	770,174
75-79	6	19,522	67	13,360	895,121
80+	7	17,426	108	10,221	1,103,836
TOTAL	39	\$ 23,378	334	\$ 14,968	\$ 4,999,408

Age	Total		Total Benefit	
	Number	Average Benefit	Number	Total Benefit
20-24	-	-	-	-
25-29	-	-	-	-
30-34	-	-	-	-
35-39	2	32,504	-	65,008
40-44	2	42,869	-	85,739
45-49	-	-	-	-
50-54	5	39,733	-	198,664
55-59	33	25,528	-	842,440
60-64	45	22,485	-	1,011,824
65-69	37	14,716	-	544,479
70-74	61	15,163	-	924,942
75-79	73	13,866	-	1,012,251
80+	115	10,659	-	1,225,815
TOTAL	373	\$ 15,848	\$	5,911,160

Benefits shown are net of State reimbursed COLA.





LEOMINSTER RETIREMENT SYSTEM

VALUATION METHODOLOGY

Stone Consulting, Inc. used the Entry Age Normal actuarial funding method in this actuarial valuation. The use of the Entry Age Normal actuarial funding method is consistent with the requirements of Chapter 32 of the Massachusetts General Laws.

NORMAL COST

	January 1, 2007	% of Payroll*
Gross Normal Cost (GNC)	\$ 2,906,883	12.8%
Employees Contribution	<u>1,950,446</u>	<u>8.6%</u>
Net Normal Cost (NNC)	\$ 956,437	4.2%
Adjusted to Beginning of Fiscal Year 2008	\$ 22,452	
Administrative Expense	\$ <u>150,000</u>	0.7%
Adjusted Net Normal Cost With Admin. Expense	\$ 1,128,889	

*Payroll paid in 2006 for employees as of January 1, 2007 is \$22,775,233. Payroll for new hires in 2006 was annualized.

- The gross normal cost (GNC) is the “price” of benefits accruing in the current year if the assumptions underlying the normal cost were realized.
- An individual normal cost represents that part of the cost of a member’s future benefits that are assigned to the current year as if the costs are to remain level as a percentage of the member’s pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation.
- Anticipated employee contributions to be made during the year are subtracted from the GNC to determine employer normal cost, or net normal cost (NNC).
- Administrative expenses added to the NNC. The administrative expense does not include investment manager and custodial fees. These fees are considered part of the interest rate assumption that is net of fees.



LEOMINSTER RETIREMENT SYSTEM

ACTUARIAL ACCRUED LIABILITY AND FUNDED STATUS

		January 1, 2007	Percentage Change
Active Actuarial Accrued Liability		\$ 54,209,277	7.2%
Superannuation	\$ 45,185,450		
Death	\$ 1,629,393		
Disability	\$ 5,874,668		
Termination	\$ 1,519,766		
Retiree, Inactive, Survivor and Beneficiary Actuarial Accrued Liability		<u>57,543,168</u>	11.9%
Retirees and Beneficiaries	\$ 48,293,940		
Disabled	\$ 8,599,949		
Inactive	\$ 649,279		
Total Actuarial Accrued Liability (AAL)		\$ <u>111,752,445</u>	9.6%
Actuarial Value of Assets (AVA)		\$ <u>88,606,344</u>	17.9%
Unfunded Actuarial Accrued Liability		\$ 23,146,101	-13.7%
Funded Ratio (AVA / AAL)			
2007 (8.00% interest rate):	79%		
2006 (8.00% interest rate):	74%		

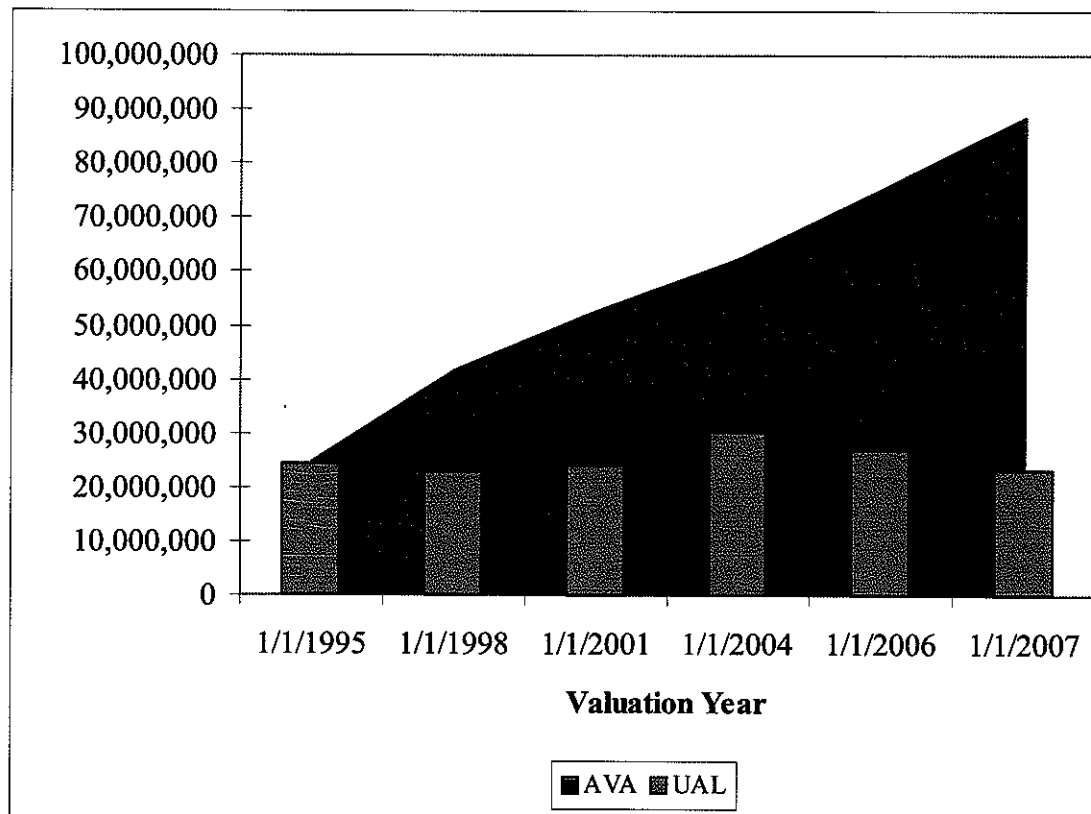
- Actuarial Accrued Liability (AAL) is the “price” of benefits attributable to benefits earned in past years, or in other words, represents today’s value of all benefits earned by active and inactive members.
- The total AAL is \$111,752,445. This along with an actuarial value of assets of \$88,606,344 produces a funded status of 79%. This compares to a funded status of 74% for the 2006 valuation.

The chart on the following page is a history of the unfunded actuarial accrued liability (UAL) and the valuation assets (AVA) over the course of the past six actuarial valuations.



LEOMINSTER RETIREMENT SYSTEM

HISTORY OF ACTUARIAL VALUATION OF ASSETS (AVA) AND UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAL)





LEOMINSTER RETIREMENT SYSTEM

DEVELOPMENT OF FUNDING SCHEDULE

Net Employer Normal Cost for Fiscal 2008	\$ 1,128,889
Amortization	\$ <u>4,164,464</u>
Total Appropriation required for Fiscal 2008	\$ 5,293,353

- The funding schedule is composed of the normal cost, and the amortization of the actuarial accrued unfunded liability and is adjusted by the administrative expense assumption. The contribution is assumed to be made at the beginning of the Fiscal Year (July 1).
- The contribution amount for Fiscal 2008 is \$5,293,353. The funding schedule is presented on page 14. The schedule's length is seven (7) years (for the fresh start base) which is one year less than the January 1, 2006 valuation schedule's length. The maximum funding schedule length allowed by Chapter 32 of the Massachusetts General Laws is twenty years to 2028.
- In developing the funding schedule, we used a fresh start approach in which the unfunded actuarial accrued liability is reamortized instead of maintaining the existing amortization amount and separately amortizing the actuarial gain or loss. The use of a fresh-start approach results in a funding schedule in which the changes in contribution amounts from year to year are more consistent. The amortization percentage changed from 2.50% from the January 1, 2006 valuation to 1.75%. The maximum amortization increase allowed under Chapter 32 is 4.5%.



LEOMINSTER CONTRIBUTORY RETIREMENT SYSTEM

FUNDING SCHEDULE

Fiscal Year	Normal Cost	Unfunded Liability	Funding Amortization of UAL	Schedule Contribution
2008	1,128,889	24,551,113	4,164,464	5,293,353
2009	1,182,511	22,017,581	4,237,342	5,419,853
2010	1,238,681	19,202,659	4,311,495	5,550,176
2011	1,297,518	16,082,457	4,386,946	5,684,464
2012	1,359,150	12,631,151	4,463,718	5,822,868
2013	1,423,710	8,820,828	4,541,833	5,965,542
2014	1,491,336	4,621,315	4,621,315	6,112,651
2015	1,562,174	-	-	1,562,174

Amortization of Unfunded Liability as of July 1, 2007

Year	Type	Original Amort. Amount	Percentage Increasing	Original # of Years	Current Amort. Amount	Years Remaining
2008	Fresh Start	4,164,464	1.75%	7	4,164,464	7

Notes on Amortization of Unfunded Liability

Year is the year the amortization base was established.

Type is the reason for the creation of the base. Examples are Gain/(Loss) or Fresh Start.

Original Amortization Amount is the annual amortization amount when the base was established.

Percentage Increasing is the percentage that the Original Amortization Amount increases per year.

Original # of Years is the number of years over which the base is being amortized.

Current Amortization Amount is the amortization payment amount for this year.

Years Remaining is the number of years left to amortize the base.



LEOMINSTER RETIREMENT SYSTEM

ASSUMPTIONS AND METHODOLOGY SUMMARY

The principal actuarial assumptions used in this valuation are the same as the assumptions used in the previous valuation, except where noted, and are summarized in the following table:

<u>Assumption</u>	<u>January 1, 2007 Valuation</u>
Interest Rate	8.00% (same as prior valuation)
Salary Increase	4.75% (same as prior valuation)
COLA	3% of \$12,000
COLA Frequency	Granted every year
Mortality	RP-2000 table. For members retired under an Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2000 table, ages set forward 7 years.
Overall Disability	<u>Groups 1 and 2</u> 45% ordinary disability 55% accidental disability <u>Group 4</u> 10% ordinary disability 90% accidental disability
Retirement Rates	<u>Groups 1 and 2</u> Ages 55 - 65 <u>Group 4</u> Ages 50 - 65
Administrative Expense	\$150,000 budget estimated for FY 2008 provided by Leominster Retirement Board.



LEOMINSTER RETIREMENT SYSTEM

ASSETS

a.	Cash	\$	579,759.88
b.	Pooled Domestic Equity Funds		4,395,491.68
c.	Pooled International Equity Funds		12,908,197.70
d.	Pooled Global Equity Funds		24,656,895.96
e.	Pooled Domestic Fixed Income Funds		16,814,075.97
f.	Pooled Alternative Investments		4,265,688.52
g.	PRIT Cash		51,548.07
h.	PRIT Fund		24,934,427.22
<hr/>			
i.	Sub-Total:	\$	88,606,085.00
j.	Interest Due and Accrued	\$	258.80
k.	Accounts Receivable		.00
l.	Accounts Payable		.00
<hr/>			
m.	Sub-Total:	\$	258.80
<hr/>			
n.	Market Value of Assets [(i) + (m)]	\$	88,606,343.80

- We were furnished with the System's annual report by the Board. The market value of assets as of December 31, 2006 (adjusted for interest due and accrued, payables and receivables) is \$88,606,343.80.
- The asset allocation is approximately 1% cash, receivables, payables and short-term investments, 23% fixed income, and 76% equities.
- Historically, 10 to 11% has been the expected long-term rate of return for equities, and 6 to 7% has been the expected long-term rate of return for fixed income securities. Many economists and investment professionals are projecting lower returns of 6.25 to 9.00% for equities and 3.65 to 6.00% for fixed income securities. In light of these projections, as well as historical investment returns, the 8.00% interest rate assumption is within the reasonable assumption range. We encourage close monitoring for changes in investment performance against expectations.



LEOMINSTER RETIREMENT SYSTEM

DISCLOSURE INFORMATION UNDER GASB STATEMENT 25

Schedules of Funding Progress

(Dollars In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll (B-A)/C
	A	B	B-A	A/B	C	(B-A)/C
1/1/2007	\$88,606	\$111,752	\$23,146	79%	\$22,775	102%
1/1/2006	\$75,143	\$101,959	\$26,816	74%	\$22,109	121%
1/1/2004	\$62,214	\$92,559	\$30,345	67%	\$20,658	147%
1/1/2001	\$52,941	\$77,053	\$24,112	69%	18,178	133%

Notes to Schedules

Additional information as of the latest actuarial valuation follows:

Valuation date 1/1/2007

Actuarial cost method Entry Age Normal

Amortization method Approximate level percent of payroll
Closed

Remaining amortization period 7 years

Asset valuation method Market value adjusted by accounts payable and receivables adjusted to phase in over 4 years investment gains or losses above or below the expected rate of investment return. The actuarial value of assets must be no less than 90% of the adjusted market value nor more than 110% of the adjusted market value. Market value of assets is \$88,606,343.80.

Actuarial assumptions:

Investment Rate of Return 8.00% per year
Projected Salary Increases 4.75% per year



LEOMINSTER RETIREMENT SYSTEM

PERAC INFORMATION DISCLOSURE

The most recent actuarial valuation of the System was prepared by Stone Consulting, Inc. as of January 1, 2007

The normal cost for employees on that date was: \$1,950,446 8.6% of payroll

The normal cost for the employer was: \$956,437 4.2% of payroll

The actuarial liability for active members was: \$54,209,277

The actuarial liability for retired members was (includes inactives): \$57,543,168

Total actuarial accrued liability: \$111,752,445

System assets as of that date: 88,606,344

Unfunded actuarial accrued liability: \$23,146,101

The ratio of system's assets to total actuarial liability was: 79%

As of that date the total covered employee payroll was: \$22,775,233

The principal actuarial assumptions used in the valuation are as follows:

Investment Return: 8.00% per annum

Rate of Salary Increase: 4.75% per annum

SCHEDULE OF FUNDING PROGRESS (Dollars in \$000's)

Actuarial Valuation Date	Actuarial Value of Assets		Actuarial Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
	(a)	(b)					
1/1/2007	\$88,606	\$111,752	\$111,752	\$23,146	79%	\$22,775	102%
1/1/2006	\$75,143	\$101,959	\$101,959	\$26,816	74%	\$22,109	121%
1/1/2004	\$62,214	\$92,559	\$92,559	\$30,345	67%	\$20,658	147%
1/1/2001	\$52,941	\$77,053	\$77,053	\$24,112	69%	\$18,178	133%



LEOMINSTER RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS

Actuarial Methods

1. Actuarial Cost Method The Entry Age Normal Actuarial Cost Method has been used in this valuation. Under this method, the normal cost is the amount calculated as the level percentage of compensation necessary to fully fund the prospective benefits from each member's entry age to retirement age.

The actuarial accrued liability represents the theoretical accumulation of all prior years' normal costs for the plan members as if the program had always been in effect. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over plan assets.
2. Asset Valuation Method Market value of assets (adjusted by payables and receivables).
3. Fiscal Year Adjustment The actuarial results are adjusted by the valuation interest rate and salary scale to the beginning of Fiscal Year 2008. The unfunded actuarial accrued liability is rolled forward with normal cost and further adjusted by anticipated contributions and interest.

Actuarial Assumptions

1. Investment Return 8.00% per year net of investment expenses. (Same as the prior valuation)
2. Salary Increases 4.75% per year. (Same as the prior valuation)



LEOMINSTER RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

3. Withdrawal Prior to Retirement

The rates shown at the following sample ages illustrate the withdrawal assumption. Withdrawal rates are set to zero if the retirement rate at that age is nonzero.

<i>Age</i>	Rate of Withdrawal	
	<i>Group 1 and 2</i>	<i>Group 4</i>
20	37.51%	3.15%
25	28.23%	2.85%
30	17.35%	2.48%
35	10.07%	1.88%
40	7.21%	0.84%
45	5.68%	0.06%
50	4.57%	0.00%
55	0.00%	0.00%

4. Disability Prior to Retirement

The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability:

<i>Age</i>	Rate of Disability	
	<i>Group 1 and 2</i>	<i>Group 4</i>
20	0.03%	0.10%
25	0.04%	0.12%
30	0.06%	0.18%
35	0.08%	0.26%
40	0.12%	0.38%
45	0.18%	0.58%
50	0.31%	0.98%
55	0.50%	1.60%
60	0.61%	1.97%

Disability is assumed to be 45% ordinary and 55% accidental for Group 1 and 2 and 10% ordinary and 90% accidental for Group 4.



LEOMINSTER RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

5. Rates of Retirement

The rates shown at the following ages illustrate the assumption regarding the incidence of retirement, once the member has achieved 10 years of service:

<i>Age</i>	Rates of Retirement	
	<i>Group 1 and 2</i>	<i>Group 4</i>
50	N/A	2%
51	N/A	2%
52	N/A	2%
53	N/A	2%
54	N/A	2%
55	10%	5%
56	3%	5%
57	3%	5%
58	3%	5%
59	5%	5%
60	5%	10%
61	5%	10%
62	10%	20%
63	10%	20%
64	10%	20%
65	100%	100%

6. Mortality

The RP-2000 mortality table for healthy annuitants (sex-distinct).

7. Disabled Life Mortality

The RP-2000 mortality table for healthy annuitants (sex-distinct) set-forward by 7 years. Death is assumed to be due to the same cause as the disability 40% of the time.

8. Regular Interest Rate Credited to Annuity Savings Account

2% per year.



LEOMINSTER RETIREMENT SYSTEM

ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

- | | |
|------------------------------|---|
| 9. Family Composition | Members assumed married with 2 dependent children – one male and one female both age 15; age difference between member and spouse assumed to be 3 years (the male being the older). |
| 10. Cost-of-Living Increases | A 3% COLA on the first \$12,000 of a member's retirement allowance is assumed to be granted every year. |
| 11. Administrative Expenses | Estimated budgeted amount of \$150,000 for the Fiscal Year 2008 excluding investment management fees and custodial fee is added to the Normal Cost. |
| 12. Step Increases | Step increases are assumed to be part of the salary increase assumption. |
| 13. Credited Service | Service between date of hire and date of membership is assumed to be purchased by all members. |
| 14. Contribution Timing | Contributions are assumed to be made at the beginning of the fiscal year (July 1). |
| 15. Valuation Date | January 1, 2007. |



LEOMINSTER RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS

1. Participant

Participation is mandatory for all full-time employees whose employment commences before age 65. There are three classes of members in the retirement system:

Group 1: general employees

Group 2: employees in specified hazardous occupations (e.g., electricians)

Group 4: police and firefighters
2. Member Contributions

Member contributions vary depending upon date hired as follows:

Date of Hire	Member Contribution Rate
Prior to 1975	5% of Pay
1975 – 1983	7% of Pay
1984 – June 30, 1996	8% of Pay
After June 30, 1996	9% of Pay

Members hired after 1978 contribute an additional 2% of pay over \$30,000.
3. Pay
 - a. Pay

Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay, and other similar compensation.
 - b. Average Pay

The average of pay during the 3 consecutive years that produce the highest average or, if greater, during the last three years (whether or not consecutive) preceding retirement.
4. Credited Service

Period during which an employee contributes to the retirement system plus certain periods of military service and "purchased" service.



LEOMINSTER RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

5. Service Retirement

- a. **Eligibility** Completion of 20 years of credited service or attainment of age 55 and completion of 10 years of credited service. If hired prior to 1978 or a member of group 4, attainment of age 55.
- b. **Retirement Allowance** Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown below (maximum allowance of 80% of average pay):

Benefit Percentage	Group 1	Group 2	Group 4
2.5%	65+	60+	55+
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	N/A	49
1.8	58	N/A	48
1.7	57	N/A	47
1.6	56	N/A	46
1.5	55	N/A	45

In addition, veterans receive an additional \$15 per year for each year of credited service up to 20 years.

6. Deferred Vested Retirement

- a. **Eligibility** Completion of 10 years of credited service (for elected and appointed members, 6 years in the event of involuntary termination).



LEOMINSTER RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

6. Deferred Vested Retirement (continued)

b. Retirement Allowance

Determined in the same manner as 5b. with the benefit payable at age 55, unless deferred until later at the member's option.

Member contributions with interest may be withdrawn after separation from service. If contributions are withdrawn, eligibility for retirement benefits is forfeited. Members hired before 1984 receive full interest on contributions that are withdrawn; otherwise, one half the credited interest is provided for members who withdraw after 5 but before 10 years of credited service and no interest is provided for withdrawals before 5 years of credited service.

7. Ordinary Disability Retirement

a. Eligibility

Non-job related disability after completion of 10 years of credited service.

b. Retirement Allowance

Determined in the same manner as 5b. with the benefit payable immediately. Veterans receive 50% of pay (during final year) plus an annuity based on accumulated member contributions with interest.

8. Accidental Disability Retirement

a. Eligibility

Disabled as a result of an accident in the performance of duties. No age or service requirement.

b. Retirement Allowance

72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child. Total allowance not to exceed 100% of pay (75% for members hired after 1987).



LEOMINSTER RETIREMENT SYSTEM

SUMMARY OF PRINCIPAL PROVISIONS (Continued)

9. Non-Occupational Death

- a. Eligibility Dies while in active service, but not due to occupational injury. 2 years of service.
- b. Retirement Allowance Benefit as if Option C had been elected (see below). Minimum monthly benefits provided as follows: spouse - \$250, first child - \$120, each additional child - \$90.

10. Occupational Death

- a. Eligibility Dies as a result of an occupational injury.
- b. Benefit Amount Same as 8b.

11. Cost-of-Living Increases

An increase of up to 3% applied to the first \$12,000 of annual benefit. Funded by the Municipality from Fiscal Year 1999. Percentage increase is voted on each year by the Retirement Board. Cost-of-living increases granted during Fiscal Year 1982 through Fiscal 1998 are reimbursed by the Commonwealth.

12. Optional Forms of Payment

- a. Option A Allowance payable monthly for the life of the member.
- b. Option B Allowance payable monthly for the life of the member with a guarantee of remaining member contributions with interest.
- c. Option C Allowance payable monthly for the life of the member with 66-2/3% continuing to the member's beneficiary upon the member's death. If the beneficiary predeceases the member, the allowance amount "pops up" to the non-reduced amount.



LEOMINSTER RETIREMENT SYSTEM

GLOSSARY OF TERMS

1. Present Value of Benefits Represents the dollar value today of all benefits expected to be earned by current members if all actuarial assumptions are exactly realized.
2. Actuarial Cost Method The procedure that is used to allocate the present value of benefits between the liability that is attributable to past service (Actuarial Accrued Liability) and that attributable to future service.
3. Actuarial Assumptions Estimates are made as to the occurrence of certain events that determine the level of benefits to be paid and how long they will be provided. The more important actuarial assumptions include the investment return on assets, salary increases and the rates of turnover, disability, retirement and mortality.
4. Actuarial Accrued Liability The portion of the Present Value of Benefits that is attributable to past service.
5. Normal Cost The portion of the Present Value of Benefits that is attributable to benefits to be earned in the coming year.
6. Actuarial Assets Market value of assets (adjusted by payables and receivables).
7. Unfunded Actuarial Accrued Liability That portion of the Actuarial Accrued Liability not covered by System Assets.
8. PERAC Public Employee Retirement Administration Commission, a division of the State government which has regulatory authority over the administration of the retirement system.
9. PRIT Pension Reserves Investment Trust Fund is the state controlled and administered fund for the investment of assets for members of the retirement system.
10. GASB Government Accounting Standards Board (issues guidance for disclosure of retirement system liabilities).